

Name_____

Date_____

Period_____

2.9

~~2.9~~ Graphing Rational Functions Worksheet

Find the VA and HA of the following:

1. $\frac{x^2 + 4x - 5}{x^2 + 9x + 20}$

VA_____

HA_____

2. $\frac{x^2 - 9}{x + 3}$

VA_____

HA_____

3. $\frac{x + 6}{2x^2 + 9x - 18}$

VA_____

HA_____

Graph each equation and fill in all the blanks. (Choose 3 for #4-8)

4. $y = \frac{3}{x + 2}$

Domain_____

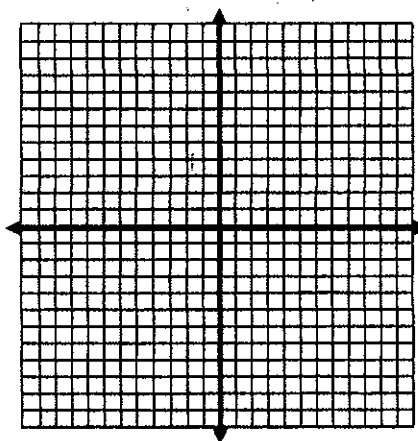
VA_____

Holes_____

x-int_____

y-int_____

HA_____



5. $y = \frac{x^2 - 9}{x - 3}$

Domain_____

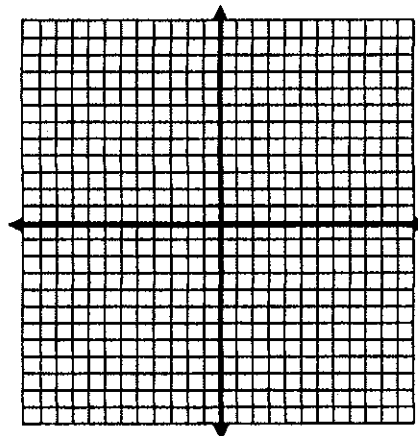
VA_____

Holes_____

x-int_____

y-int_____

HA_____



6. $y = \frac{x^2 - 2x - 3}{x - 2}$

Domain _____

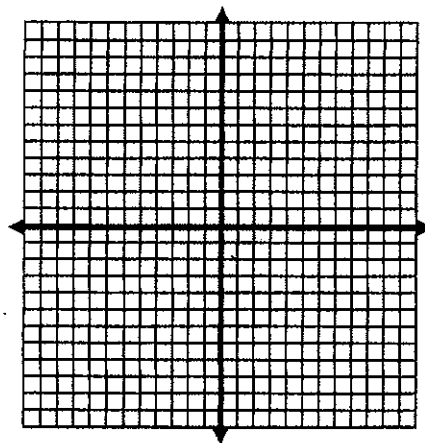
VA _____

Holes _____

x-int _____

y-int _____

HA _____



7. $y = \frac{x + 1}{(x - 3)^2}$

Domain _____

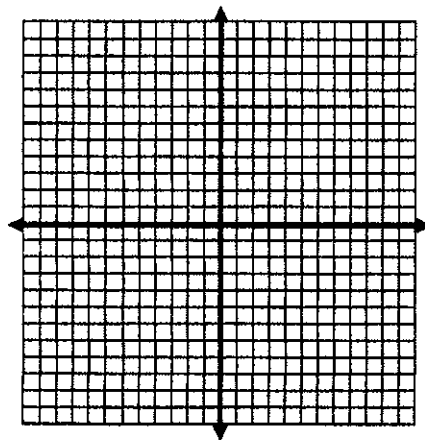
VA _____

Holes _____

x-int _____

y-int _____

HA _____



8. $y = \frac{x - 4}{-4x - 16}$

Domain _____

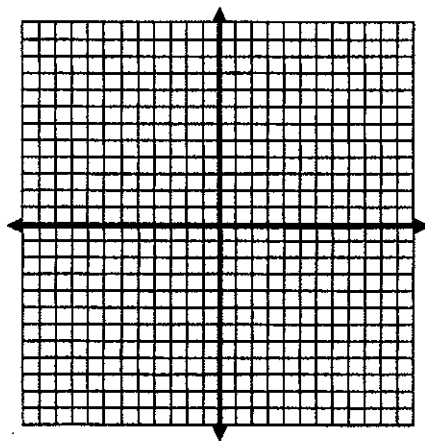
VA _____

Holes _____

x-int _____

y-int _____

HA _____



Complete all #9-11.

$$9. f(x) = \frac{2x^2}{1-x}$$

$$10. g(x) = \frac{x^3 - 3x^2}{x^2 - 1}$$

$$11. h(x) = \frac{\cancel{x^3 - 1}}{\cancel{x^2 - x - 2}} \quad \frac{x^3 - 1}{2x^2 - 2}$$